

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Threatened Status for *Marshallia mohrii*

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines a plant, *Marshallia mohrii* (Mohr's Barbara's-buttons), to be a threatened species under the authority contained in the Endangered Species Act of 1973, as amended (Act). *Marshallia mohrii* is currently known from 13 sites in north Alabama (three counties) and one site in northwest Georgia. Five of these populations are confined to roadside rights-of-way and are threatened by routine maintenance practices or any future road expansion at these sites. Remaining populations are threatened by the potential conversion of their habitat for agricultural purposes. This action will extend the Act's protection to *Marshallia mohrii*.

EFFECTIVE DATE: October 7, 1988.

ADDRESSES: The complete file for this rule is available for public inspection, by appointment, during normal business hours at the Jackson Field Office, U.S. Fish and Wildlife Service, Jackson Mall Office Center, Suite 316, 300 Woodrow Wilson Avenue, Jackson, Mississippi 39213.

FOR FURTHER INFORMATION CONTACT: Ms. Cary Norquist at the above address (601/965-4900 or FTS 490-4900).

SUPPLEMENTARY INFORMATION:**Background**

Marshallia mohrii, a member of the sunflower family, is an erect perennial herb, 3-7 decimeters (1-2.3 feet) tall, arising from a thickened crown or caudex. Leaves are alternate, firm-textured, 3-nerved, 8-20 centimeters (3.2-7.8 inches) long, lanceolate-ovate in shape and gradually reduced in size upwards. Flowers are produced in several heads and are pale pink to lavender in color. Flowering occurs from mid-May through June, with fruiting in July and August (Kral 1983, McDaniel 1981).

Marshallia mohrii morphologically resembles *M. grandiflora* and *M. trinervia* and may be an allopolyploid derivative (Watson and Estes 1987). *M. mohrii* is most similar to *M. grandiflora*, the main difference being that *M. grandiflora* usually has only a single flowering head as compared to the

multi-headed inflorescence of *M. mohrii* (Watson pers. comm. 1988).

Marshallia mohrii typically occurs in moist prairie-like openings in woodlands and along shale-bedded streams. Other populations are located in swales on roadside rights-of-way (ROW). The soils are sandy clays, which are alkaline, high in organic matter and seasonally wet. Common associates include various grasses (*Andropogon*, *Panicum*), sedges (*Rhynchospora*, *Carex*) and prairie species including *Silphium confertifolium*, *Ruellia pinetorum*, *Allium cernuum*, *Physostegia*, and *Asclepias engelmanniana*. The surrounding forest type is mixed hardwoods with Shumard oak, willow oak and pine (Kral 1983, McDaniel 1981). The endangered *Clematis socialis* and *Sarracenia oreophila* occur with *Marshallia mohrii* at two separate sites. *Lysimachia graminea*, a candidate plant, is an associate of *Marshallia mohrii* at several sites in Alabama.

Marshallia mohrii was first collected by Mohr in Cullman County, Alabama in 1893 and later described by Beadle and Boynton (1901). Several collections of this species were made near Cullman around the turn of the century and one record during this time exists for Walker County, Alabama, and Lookout Mountain, Georgia (Channell 1955, 1957, McDaniel 1981). Only vague locality information exists with these specimens

and with the exception of Walker County, Alabama, no collections of this species have been made in these areas in recent times.

Kral's (1973) discovery of this species in Cherokee County, Alabama, in 1969, marked the first time this species had been observed since 1941. Extensive searches of suitable habitat in northeast Alabama and adjacent Georgia have been conducted. Currently, *Marshallia mohrii* is known to exist at only 1 site in Georgia (Floyd County) and 13 sites in Alabama, including 1 population in Bibb County (Watson pers. comm. 1986), 8 populations in Cherokee County, and 4 populations in Etowah County. Five relatively recent records of *Marshallia mohrii* in Alabama were not relocated during field searches in June of 1985 or 1986, including a collection from Bibb County (A. Sessler, Auburn University, pers. comm. 1986), two in Walker County (Whetstone 1979, Kral pers. comm. 1986), and two in Cherokee County (Whetstone pers. comm. 1987). Verbal reports of *Marshallia mohrii* in Murray and Bartow Counties, Georgia have not been confirmed (Kral pers. comm. 1987).

Five populations are confined to roadside ROW where the number of individuals range from 2 to 50. At the remaining nine sites, plants occur in more typical habitat; however, plants extend onto ROW swales at several areas. Populations appear to be concentrated primarily in two areas, eastern Etowah County and central Cherokee County, Alabama. Here, populations are within 0.5 mile to 2 miles of one another. The largest populations occur in Cherokee County, with an estimated 1000 plants at 2 sites. Three sites support limited populations (12-50 individuals) and 4 have moderate-sized populations (100-200 individuals).

Federal actions involving *Marshallia mohrii* began with section 12 of the Endangered Species Act of 1973, which directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. On July 1, 1975, the Service published a notice in the *Federal Register* (40 FR 27823) of its acceptance of the report of the Smithsonian Institution as a petition within the context of section 4(c)(2), now section 4(b)(3)(a), of the Act and of its intention thereby to review the status of those plants. On June 16, 1976, the Service published a proposed rule in the *Federal Register* (41 FR 24523) to determine

approximately 1,700 vascular plant species to be endangered species pursuant to section 4 of the Act. *Marshallia mohrii* was included in the Smithsonian petition and the 1976 proposal. General comments received in relation to the 1976 proposal were summarized in an April 26, 1978, *Federal Register* publication (43 FR 17909).

The Endangered Species Act Amendments of 1978 required that all proposals over 2 years old be withdrawn. A 1-year grace period was given to proposals already over 2 years old. In the December 10, 1979, *Federal Register* (44 FR 70796), the Service published a notice of withdrawal of the June 16, 1976, proposal, along with four other proposals that had expired. *Marshallia mohrii* was included as a category 1 species in a revised list of plants under review for threatened or endangered classification published in the December 15, 1980, *Federal Register* (45 FR 82480). Category 1 comprises taxa for which the Service presently has sufficient biological information to support their being proposed to be listed as endangered or threatened species. On November 28, 1983, the Service published a supplement to the Notice of Review for Native Plants in the *Federal Register* (48 FR 53640); the plant notice was again revised September 27, 1985 (50 FR 39526). *Marshallia mohrii* was included as a category 2 species in the 1983 supplement and the 1985 revised notice. Category 2 species are those for which listing as endangered or threatened species may be warranted but for which substantial data on biological vulnerability and threats are not currently known or on file to support a proposed rule. Extensive field searches by the author and others now support its reevaluation to category 1 and listing as threatened. The data demonstrates a limited distribution and continuing threats to the species.

Section 4(b)(3) of the Endangered Species Act, as amended in 1982, requires the Secretary to make certain findings on pending petitions within 12 months of their receipt. Section 2(b)(1) of the 1982 Amendments further requires that all petitions pending on October 13, 1982, be treated as having been newly submitted on that date. This was the case of *Marshallia mohrii* because of the acceptance of the 1975 Smithsonian report as a petition. In October of 1983, 1984, 1985, 1986, and 1987, the Service found that the petitioned listing of *Marshallia mohrii* was warranted, but that listing this species was precluded due to other higher priority listing actions. On November 19, 1987, the Service published in the *Federal*

Register (52 FR 44583), a proposal to list *Marshallia mohrii* as a threatened species. The Service now determines *Marshallia mohrii* to be a threatened species with the publication of this final rule.

Summary of Comments and Recommendations

In the November 19, 1987, proposed rule (52 FR 44583) and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Newspaper notices inviting public comment were published in the *Rome News-Tribune*, Rome, Georgia, on December 10, 1987, and in the *Birmingham News*, Birmingham, Alabama, and the *Gadsden Times*, Gadsden, Alabama, on December 14, 1987.

A total of nine comments were received, including one from a Federal agency, three from State agencies, and five from individuals or groups. All were supportive. One individual provided additional biological information which has been incorporated into the appropriate section of the rule. Another individual expressed frustration over the lack of protection for plants under the Act. He also stated that habitat could not be protected without critical habitat designation. Critical habitat is not being designated for reasons outlined under the "Critical Habitat" section; habitat protection is provided through the section 7 jeopardy standard and the recovery process. His letter also discussed the role cultivation of plants can play in conservation, and his frustrations over Service policy (permit process) which he feels " * * * discourage the ex-situ preservation of * * * plants which have been artificially propagated." However, the cultivation of listed plants is usually encouraged and incorporated into subsequent recovery plans.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Marshallia mohrii* should be classified as a threatened species. Procedures found at section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 et seq.) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act were

followed. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Marshallia mohrii* Beadle and Boynton (Mohr's Barbara's-buttons) are as follows:

A. The present or threatened destruction, modification, or curtailment of its habitat or range. *Marshallia mohrii* is endemic to the southern Appalachians of Alabama and Georgia where it is known to occur at 14 sites (see "Background" for specific locality information). Seven other historical sites have not been relocated and may have been destroyed. *Marshallia mohrii* is threatened by the potential destruction or adverse modification of its habitat. Many plants occur on roadside rights-of-way and are vulnerable to accidental disturbances. Any future road improvements (expansion) or roadside maintenance activities (i.e., herbicide treatment, bulldozing, planting of competitive grasses, mowing during flowering) at these sites, could adversely impact or destroy populations if proper planning does not occur. One such population in Cherokee County, Alabama, was destroyed by clearing for road construction. The Service will work in cooperation with the Alabama Highway Department in order to provide these sites with protection.

Plants on privately-owned sites are potentially threatened by the conversion of their habitat to improved pastureland through drainage, seeding with forage grasses or plowing and disking (Kral 1983, McDaniel 1981). Much of its suitable habitat has been converted to pastureland or row crops.

Marshallia mohrii maintains itself only in areas which were naturally or artificially cleared and probably are maintained naturally through occasional fire or local soil conditions that promote a grass-sedge community (Kral 1983). Mechanical disturbance of soil if unaccompanied by drainage might prepare openings for seeds to germinate (Kral 1983). Research into this aspect of the species' biology is needed in order to perpetuate appropriate habitat conditions.

B. Overutilization for commercial, recreational, scientific, or educational purposes. *Marshallia mohrii* is currently not a significant component of the commercial trade of native plants; however, the species has potential for horticultural use (McCartney pers. comm. 1987) and publicity from its listing could generate an increased demand. Taking and vandalism pose two risks to this species due to its

visibility when in flower and accessibility of the sites.

C. Disease or predation. Although cattle will feed on *Marshallia mohrii* (Kral 1983), predation is not thought to be a significant threat to the species. *Marshallia mohrii* is not known to be threatened by disease.

D. The inadequacy of existing regulatory mechanisms. There are no State or Federal laws protecting *Marshallia mohrii* or its habitat. It is unofficially recognized as endangered in Alabama (Freeman 1984) and Georgia (T. Patrick, Georgia Natural Heritage Program, pers. comm. 1987). The Act would provide protection (see "Available Conservation Measures" below) and encourage active management for this species. Its listing would encourage its addition to the official list of endangered and threatened plants by the Georgia Department of Natural Resources, thereby affording it protection under the Wildflower Preservation Act of 1973. This legislation prohibits taking of plants from public land (without a permit) and regulates the sale and transport of plants within the State.

E. Other natural or manmade factors affecting its continued existence. *Marshallia mohrii* is vulnerable due to its limited distribution and small number of individuals at many of the sites. Its survival is dependent upon the maintenance of prairie-like openings (McDaniel 1981); therefore, woody succession poses an insidious threat to this species and its habitat.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to list *Marshallia mohrii* as a threatened species. Threatened status seems appropriate since the populations are not imminently in danger of destruction; however, *Marshallia mohrii* is not currently protected by law and, if protective measures are not taken for this species, it could become endangered in the foreseeable future. Critical habitat is not being designated for the reasons discussed below.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for this species at this

time. Publication of exact locations of *Marshallia mohrii* would increase public interest and possibly lead to additional threats to the species from collecting and vandalism (see Factor B in the "Summary of Factors" section). Furthermore, *Marshallia mohrii* would not be protected from taking under the Act since it does not occur on lands under Federal jurisdiction. No benefit can be identified through critical habitat designation that would outweigh these potential threats. The State agency (Alabama Highway Department) which has jurisdiction over some of this species' habitat has been notified of the plant's locations and has agreed to work with the Service to protect *Marshallia mohrii* on the rights-of-way. The involved private landowners will be informed of the location and importance of protecting this species' habitat. Protection of this species' habitat will be addressed through the recovery process and through the section 7 jeopardy standard. Therefore, it would not be prudent to determine critical habitat for this species at this time.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or to destroy or adversely modify its critical habitat. If a Federal action may adversely affect a listed species or its critical habitat, the responsible Federal

agency must enter into formal consultation with the Service.

The only potential Federal involvement with *Marshallia mohrii* at this time would be Federal funds or other Federal involvement with the highway rights-of-way maintenance. Highway maintenance crews are working cooperatively with the Service to find rights-of-way maintenance techniques that are compatible with protecting *Marshallia mohrii*.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.72 set forth a series of general trade prohibitions and exceptions that apply to all threatened plants. All trade prohibitions of Section 9(a)(2) of the Act, implemented by 50 CFR 17.71, would apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export any threatened plant, transport it in interstate or foreign commerce in the course of a commercial activity, sell or offer it for sale in interstate or foreign commerce, or remove it from areas under Federal jurisdiction and reduce it to possession. Seeds from cultivated specimens of threatened plant species are exempt from these prohibitions provided that a statement of "cultivated origin" appears on their containers. Certain exceptions can apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances. It is anticipated that few trade permits would ever be sought or issued since the species is not common

in cultivation or in the wild. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, P.O. Box 27329, Washington, DC 20038-7329 (202/343-4955).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

References Cited

- Beadle, C.D., and P.E. Boynton. 1901. A revision of the species of *Marshallia*. *Biltmore Botanical Studies* 1:3-10.
- Channell, R.B. 1955. A revisional study of the genus *Marshallia* (Compositae). Ph.D. Dissertation, Duke University, Durham, North Carolina. 219 pp.
- Channell, R.B. 1957. A revisional study of the genus *Marshallia* (Compositae). *Contr. Gray Herb.* 181:41-132.
- Freeman, J.D. 1984. Vascular plant species critical to maintenance of floristic diversity in Alabama. Unpub. report. 23 pp.
- Kral, R. 1973. Some notes on the flora of the southern states, particularly Alabama and middle Tennessee. *Rhodora* 75:366-410.
- Kral, R. 1983. A report on some rare, threatened, or endangered forest-related vascular plants of the South. USDA, Forest Service, Tech. Pub. R8-TP2. 1305 pp.
- McDaniel, S.T. 1981. Status report on *Marshallia mohrii*. Provided under contract

- to the U.S. Fish and Wildlife Service, Southeast Region, Atlanta, Georgia. 6 pp.
- Watson, L.E., and J.R. Estes. 1987. Chromosomal evolution of *Marshallia* (Asteraceae). *American Journal of Botany* 74:764.
- Whetstone, R.D. 1979. New or noteworthy records for flora of Alabama. *Castanea* 44:1-8.

Author

The primary author of this final rule is Cary Norquist (see **ADDRESSES** section) (601/965-4900 or FTS 490-4900).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Regulation Promulgation

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended as set forth below:

PART 17—[AMENDED]

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 [16 U.S.C. 1531 *et seq.*]; Pub. L. 99-625, 100 Stat. 3500 (1986), unless otherwise noted.

2. Amend § 17.12(h) by adding the following, in alphabetical order under Asteraceae, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

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(h) * * *

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Asteraceae—Aster family:						
<i>Marshallia mohrii</i>	Mohr's Barbara's button.....	U.S.A. (AL, GA).....	T	324	NA	NA

Dated: August 11, 1988.

Susan Recce,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 88-20298 Filed 9-6-88; 8:45 am]

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